## CLAIMS 1-23 ARE CANCELED.

## 24. (currently amended) An integrated circuit comprising:

- a. a lateral NPN transistor having an emitter electrode, a base electrode, and a collector electrode, the NPN transistor operable to conduct current between the emitter electrode and the collector electrode upon a positive first avalanche voltage applied between the emitter electrode and collector electrode;
- b. an input element operable to receive a input voltage;
- a circuitry connected to the input element and to the NPN transistor;
- d. an NMOS transistor, having a source electrode, a drain electrode, and a gate electrode, coupled to the lateral NPN transistor;
- e. the gate electrode capacitively coupled to input element and resistively coupled to a ground to maintain a voltage corresponding to the input voltage;

- f. the NMOS operable to conduct a drain current upon an electrostatic discharge voltage less positive than the first avalanche voltage applied to the input element, the electrostatic discharge voltage being more positive than the ordinary operating voltage of the circuitry coupled to the input element;
- g. a lateral PNP transistor, having an emitter electrode, a base electrode, and a collector electrode, connected to the input element and resistively coupled to the ground; and
- h. the lateral PNP transistor operable to conduct a collector current upon an electrostatic-discharge voltage less positive
  - than the first avalanche voltage applied to the input element, the electrostatic discharge voltage being more positive than the ordinary operating voltage of the circuitry coupled to the input element, the collector current setting a base voltage at the base electrode of the lateral NPN transistor.
- 25. (new) The integrated circuit in claim 24, further comprising a p-doped element disposed near the base of the lateral NPN transistor, the p-doped element connecting the collector of the lateral PNP transistor and distancing the lateral NPN transistor from the lateral PNP transistor to maintain a SCR-free operation.
- 26. (new) The integrated circuit in claim 25, in which the NPN transistor includes a plurality emitter elements coupled in parallel, a plurality of base elements coupled in parallel, a plurality of collector elements coupled in parallel, and the p-doped element includes a plurality of p-doped sub-elements coupled in parallel.

## 27. (new) An integrated circuit comprising:

- a. a lateral NPN transistor having an emitter, a base, and a collector, the NPN transistor operable to conduct current between the emitter electrode and the collector electrode upon a positive first avalanche voltage applied between the emitter and collector;
- b. an input element operable to receive a input voltage;
- c. a circuitry connected to the input element and to the NPN transistor;
- d. an NMOS transistor, having a source, a drain, and a gate, coupled to the lateral NPN transistor;

- e. the gate capacitively coupled to input element and resistively coupled to a ground to maintain a voltage corresponding to the input voltage;
- f. the NMOS operable to conduct a drain current upon an electrostatic discharge voltage less positive than the first avalanche voltage applied to the input element, the electrostatic discharge voltage being more positive than the ordinary operating voltage of the circuitry coupled to the input element;
- g. a PMOS transistor, having an source, a gate, and a drain, connected to the input element and resistively coupled to the ground; and
- h. the PMOS transistor operable to conduct a drain current upon an electrostatic discharge voltage less positive than the first avalanche voltage applied to the input element, the electrostatic discharge voltage being more positive than the ordinary operating voltage of the circuitry coupled to the input element, the drain current setting a base voltage at the base of the lateral NPN transistor.
- 28. (new) The integrated circuit in claim 27, further comprising a p-doped element disposed near the base of the lateral NPN transistor, the p-doped element connecting the collector of the lateral PNP transistor and distancing the lateral NPN transistor from the PMOS transistor to maintain a SCR-free operation.
- 29. (new) The integrated circuit in claim 28, in which the NPN transistor includes a plurality emitter elements coupled in parallel, a plurality of base elements coupled in parallel, a plurality of collector elements

coupled in parallel, and the p-doped element includes a plurality of p-doped sub-elements coupled in parallel.

## 30. (new) An integrated circuit comprising:

- a. a lateral NPN transistor having an emitter, a base, and a collector, the NPN transistor operable to conduct current between the emitter and the collector upon a positive first avalanche voltage applied between the emitter and collector;
- b. an input element operable to receive a input voltage;
- a circuitry connected to the input element and to the NPN transistor;
- d. an NMOS transistor, having a source, a drain, and a gate, coupled to the lateral NPN transistor;
- e. the gate capacitively coupled to input element and resistively coupled to a ground to maintain a voltage corresponding to the input voltage;
- f. the NMOS operable to conduct a drain current upon an electrostatic discharge voltage less positive than the first avalanche voltage applied to the input element, the electrostatic discharge voltage being more positive than the ordinary operating voltage of the circuitry coupled to the input element;
- g. a vertical PNP transistor, having an emitter, a base, and a collector, connected to the input element and resistively coupled to the ground; and
- h. the vertical PNP transistor operable to conduct a collector current upon an electrostatic discharge voltage less positive than the first avalanche voltage applied to the input element,

the electrostatic discharge voltage being more positive than the ordinary operating voltage of the circuitry coupled to the input element, the collector current setting a base voltage at the base of the lateral NPN transistor.

- 31. (new) The integrated circuit in claim 30, further comprising a p-doped element disposed near the base of the lateral NPN transistor, the p-doped element connecting the collector of the vertical PNP transistor and distancing the lateral NPN transistor from the vertical PNP transistor to maintain a SCR-free operation.
- 32. (new) The integrated circuit in claim 31, in which the NPN transistor includes a plurality emitter elements coupled in parallel, a plurality of base elements coupled in parallel, a plurality of collector elements coupled in parallel, and the p-doped element includes a plurality of p-doped sub-elements coupled in parallel.